



U.S. Department  
of Transportation  
Pipeline and  
Hazardous Materials  
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE NUMBER USA/0717/S, REVISION 0

400 Seventh Street, S.W.  
Washington, D.C. 20590

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive materials.

1. Source Identification - AEA Technology QSA, Inc. Model X100 (Manufactured on or after January 4, 1979).
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate outer dimensions are 2.2 mm (0.09 in.) in diameter and 10.5 mm (0.41 in.) in length. Minimum wall thickness is 0.15 mm (0.006 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA10821, Rev. A.
3. Radioactive Contents - No more than either 370.0 MBq (10.0 mCi) of Americium-241 or 740.0 MBq (20.0 mCi) of Californium-252. The Am-241 is in the form of an oxide incorporated into a ceramic enamel. The Cf-252 is in the form of a solid metal or a ceramic.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires September 30, 2010.

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1 "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

2 Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

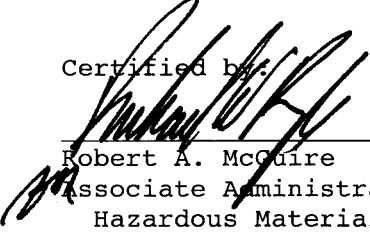
( - 2 - )

**CERTIFICATE USA/0717/S, REVISION 0**

This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated July 28, 2005 and September 26, 2005 submitted by AEA Technology QSA, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified by:

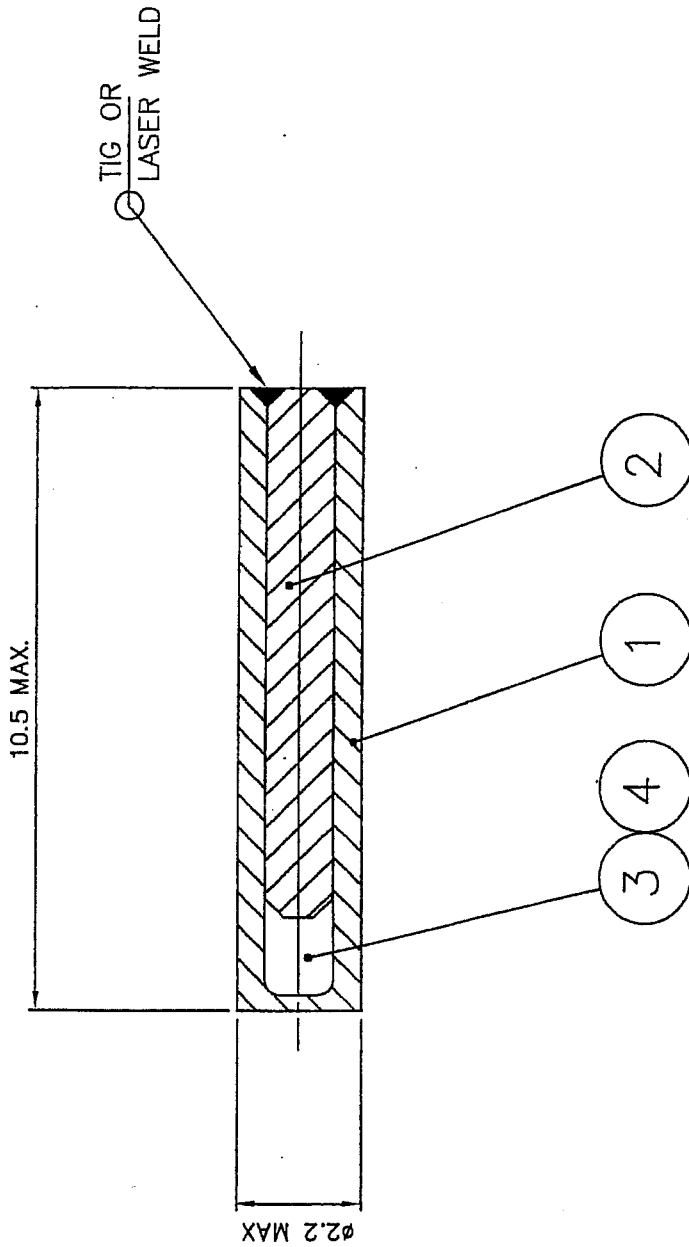
OCT - 6 2005

  
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Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

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(DATE)

Revision 0 - Original issue.

Item No	Description	No off
1	BODY STAIN. STL	1
2	LID STAIN. STL.	1
3	CERAMIC FIBRE	A/R
4	ACTIVE MATERIAL	A/R



<b>AEATECHNOLOGY</b> QSA 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
APPROVALS <i>[Signature]</i> 7/25/05 <i>[Signature]</i> 8/25/05		TITLE X100 CAPSULE ASSEMBLY	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ±0.5 XX ±0.1 XXX ±0.05 ANGULAR ±5°		SIZE A DWG. NO. RBA10821 SCALE: NONE	
ERF # 1105		REV A SHEET 1 OF 1	